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## AN APPARATUS FOR PRODUCING ECOLOGICALLY CLEAN ENERGY

## ABSTRACT OF THE DISCLOSURE

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A device and a method for performing cavitation energy generation includes a reaction vessel or volume containing a deuterium rich or other hydrogen isotope material along with a metal having certain lattice structures that will accept hydrogen or hydrogen isotope atoms within the lattice framework of the metal for either transient time periods or permanently. In order to provide atomic hydrogen or atomic hydrogen isotopes to the lattice structure and further to bring the various hydrogen atoms into close proximity so high energy reactions may occur, a sonicator provides high energy sound waves to the relatively incompressible liquid containing liquid deuteriumoxide or heavy water and other deuterium containing liquids and also dissolved deuterium or other hydrogen isotopes and /or noble gases. The sonicator causes cavitation bubbles to form adjacent to the metal utilized in the device. Such cavitation bubbles upon collapse create local high temperatures and high pressures directing a plasma-like jet into the metal lattice thereby resulting in combination within the metal lattice. The results of such events are the generation of excess heat and the corresponding heat production, along with levels of radiation equivalent to background levels.